## DOWN WITH THE TYPE-CULT.

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The "Type", i. e., the object on which the definition or description of a zoological novity is founded, is an idea that did not become of great importance in zoology until modern times. Among the earlier workers on systematics "types" practically did not exist. Later on we find in the literature the designation "type" here and there, but still no one thought of determining the priority of species on the "types". To-day we are so "advanced" that numerous authors, especially those who choose to call themselves "specialists", found their species almost exclusively on the "types", while the description and eventually the figure are considered as a matter of quite secondary importance, or as merely a matter of form, in spite of the fact that the modern rules of nomenclature, as well as those which Linné. Fabricius, etc. used exclusively acknowledge a definition or a description as the basis which alone can be the foundation of priority. Thence it follows, that the establishment of species on the basis of "types" is opposed to the rules of nomenclature, and even if one asserts that the types have been used only in order to verify and better the descriptions, that is likewise an abuse, if it leads to conclusions that are quite contradictory to the description. In using "types" there are so many particulars which may turn out to be quite misleading or may lead one astray and give rise to abuse, that it is difficult to understand why people, who are not wholly lacking in a knowledge of men and matters, do

not discover and notice such particulars themselves. A partial explanation may lie in the fact that the type-cult, as a matter of fashion, is not readily eliminated. A fashion may be quite ridiculous, nevertheless the masses adore it. The most reasonable explanation may be, however, that the "specialists", who are to-day dominating systematic natural history can most easily maintain their hegemony through the type-cult and thus are personally interested in it. Now and then, however, voices are heard which protest against the worst sides of the type-cult. We find e. g., in the Stettiner Entomologische Zeitung, 1928, p. 63, seq., a paper by R. Kleine on the types of the Brenthidae, in which he points out in his introduction that the description is and has to be a primary and the type a secondary consideration. The types in most cases are not accessible to the worker, and shortly it will be quite impossible to write a monograph if an examination of the types is to be considered a necessary prerequisite for such work. Only he who is in favor with the keeper of the types can get access to them; moreover, Kleine asks: "who guarantees that the animal designated as 'type' really is the type?", for he adds: "the strangest things have at times taken place" (he is doubtless quite right). He also asks how the types in many cases are preserved, further where are they preserved, and finally he concludes, that the description represents everything and that we must proceed so far as to release monographers from the necessity of examining the types. What Kleine thus emphasizes so far is quite right; however, as we shall see it represents only half the truth and when he (l. c. p. 63) quotes the assertion of an American entomologist that hardly one-quarter of the 20,000 American insects which have so far been described can be determined from the description alone, I am astonished that he is so credulous.

More extensively and more clearly, but not sharply enough, Edmund Reitter expresses his opinion on the same topic in the Wiener Entomologische Zeitung, vol. 31, p. 21-26 (1912). He emphasizes how unjust and absurb it is to declare species null and void, when so called "types" are not in accordance with the description. Types may be easily misleading as a result of misplaced labels, damage,

etc., and to this is to be added that such misplacements can be made intentionally and that in the case of a printed description this is quite out of the question. Here we must do what Reitter did not do, expressly emphasize that the description is quite an absolutely constant, invariable thing which is accessible to the whole world. Accordingly, misapprehensions may at any time be corrected by anyone and from different viewpoints while the examiner of "types" is often in the position so he can decree his "discoveries" to the credulous entomological public without any disputation from others. Another point which Reitter does not mention but which in my opinion is of very great importance, is the following: the entomological public is obviously always apt to place more confidence in the new "examiner" of the "type" than in the original describer. That is quite wrong for logical as well as for psychological reasons; the reverse is right. It is most certainly the author of the species who has every reason, including his personal interest, to examine the "types" precisely and conscientiously. The new "examiner", however, is liable to present himself, either unconsciously or not, to the public as a discoverer, wiser person, and improver, and this liability can easily cause him to "discover" differences in the "type" which in reality exist only in his own imagination. If the eve of the "reviser" has been influenced by personal animosity, envy or hatred, then it is no wonder that the results of the "examination" are often peculiar. Moreover, we should bear in mind that what is to be seen on an entomological type, depends greatly upon the examiner himself; one may see distinct differences which another who has the best intentions and makes the greatest efforts does not see. Who guarantees that the new examiner of the type is abler than the original describer in this respect? I think that it has often happened that the "reviser" has degraded a number of species into synonyms because he did not see the distinctive marks which the original describer stated, and which in reality are present. Reitter speaks (l. c.) of the pronounced endeavor of many authors to change the usual synonymy on account of more or less problematic "types" and to degrade the species of other authors into synonyms and he asks what the end will

be when the "type-madness" proceeds so far as to consider the type as all and the description as a mere matter of form. Another point in the "examinations" of "types" which likewise has not been taken into consideration by Reitter and which is often of decisive importance, is the fact that if a "specialist" personally cannot have some "types" for the sake of examination, he writes some correspondent, who lives in the town where the types are preserved and asks him to examine the types. In order to show his superiority in this domain the specialist does not forget in the same letter to suggest that type A may be cospecific to species X and type B to species Y etc., and then asks the correspondent to settle this question. The correspondent compares type A with species X but has no specific knowledge of the group in question and consequently he does not know which items in this question are of most importance and he is not trained to find the distinctive marks which will decide the matter. Under these circumstances it is no wonder that he is not willing to spend much time in order to study the matter. For logical and psychological reasons one can be sure that the answer of the correspondent at all events will be affirmative in such cases, for he will not be able to voice a final opinion contrary to the opinion which "Mr. Specialist" had already expressed or at least indicated. Consequently the correspondent finishes the matter with "it may be so" and the specialist proclaims triumphantly that comparison of types has proved that his supposition was quite right. I could mention concrete examples of such swindles. The whole "comparison of types" proves in such cases to be a comedy which the "specialist" utilizes in order to make the entomological public believe that which is agreeable to the "specialist".

For this reason I have always considerer types as of no great importance and the descriptions have always been the main point to me, and for this point of view I now stand more than ever. Consequently: Down With the Type-Cult!